

Applicant: Donald L. Schilling
Application No.: 10/072,080

REMARKS

Reconsideration of the application, as amended, is respectfully requested. By this amendment, claims 1, 2, 5, 9 and 12 have been amended and new claims 15-20 have been added. The changes to claims 1, 5 and 12 define the generation of a local reference signal. Each of claims 1, 5, 9 and 12 have language defining the synchronization of the received and local reference signals. Support is found throughout the specification, including paragraphs [0039]-[0040] and [0048].

New claims 15-20 define specific derivations of the local reference signal. Support is found in the specification, for example at paragraph [0088].

In the Office Action, the drawings were objected to as failing to show certain steps. Accordingly, substitute drawing Figure 4 is submitted, showing these steps. These steps are believed to be adequately described in the description and are self-explanatory in the drawing.

The specification was objected to as not providing antecedent basis for the claims, with respect to the claimed "reference signal". The reference signal is mentioned in the summary (paragraph [0011]). This term is also specifically used in paragraphs [0058] and [0073]. In general, the function is described throughout the specification as signals used as reference against which the spread spectrum spreading or despreading is performed.

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All of the claims were rejected under 35 USC §112 as not enabled. It is believed that the revised claims fall under the descriptions set forth in the Office Action. The claims do not claim that the transmitter generates the reference signal. The claims are to the spread spectrum communication system or method, in which the reference signal is detected or received. The claims define the reception of the signals described in the Office Action. This is as described in the specification, for example at paragraphs [0088] and [0089]. Accordingly, claims 1-14, as amended, and new claims 15-20, are believed to be fully supported.

In the office action, claims 1-4 and 9-11 were rejected under 35 USC §112, paragraph 2, as being incomplete with respect to a gap in the essential elements. It is believed that revised claims 1 and 9 overcome this rejection.

In the office action, claims 1-8 and 12-14 were rejected under 35 USC §112, paragraph 2, as being incomplete with respect to a gap in the essential steps. It is believed that revised claims 5 and 12 overcome this rejection.

In the Office Action, claims 1-14 were rejected under 35 USC §112, paragraph 2, as failing to particularly point out and distinctly claim the claimed subject matter. Each set of the revised claims (represented by independent claims 1, 5, 9 and 12) clearly define the obtaining of the combined signal. Claims 1 and 9 define "means for combining... as a combined signal". Claims 5 and 12 define "combining ... as a combined signal". Support for this feature is clearly set forth in

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the specification, for example in describing element 103. The revised claims are therefore believed to address this issue, and are believed to overcome the rejections of these claims as incomplete. Accordingly, claims 1-14, as amended, and new claims 15-20, are believed to be in proper form.

The issues raised in the office action regarding claims 2 and 9 are addressed as suggested by the Examiner.

In the Office Action, the claims were provisionally rejected under the doctrine of obviousness-type double patenting over claims 1-6 of Application 10/072,083. Applicant is willing to submit a terminal disclaimer to overcome this rejection, if the Examiner deems the claims otherwise allowable.

In the Office Action, claims 1, 2, 5, 6, 9 and 12 were rejected under 35 USC §102(b) as anticipated by Cowart, U.S. Patent 4,979,183. This rejection, as applied to the amended claims, is respectfully traversed.

Cowart is cited as showing the use of a reference signal and a message signal in a spread spectrum transceiver. While it is noted that Cowart does not show the use of a remote unit, more significantly, there is no suggestion that the transceiver generate a local signal. Cowart neither shows nor suggests synchronization of a reference signal generated by the transceiver with a detected reference signal. The Cowart description is of the use of a quartz crystal standard with no outside reference. See Cowart at col. 7, lines 19-39.

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Applicant's claims specify the use of a local reference signal. While there remains the use of a reference signal, Applicant's use of the local reference signal specifically contradicts Cowart.

Accordingly the rejection of claims 1, 2, 5, 6, 9 and 12 were rejected under 35 USC §102(b) is believed to be overcome.

In the Office Action, claims 3, 4, 7, 8, 11, 13 and 14 were rejected under 35 USC §103 as obvious over Cowart, taken in view of Gilkousen, et al., U.S. Patent 5,101,501. This rejection, as applied to the amended claims and new claims 15-20, is respectfully traversed.

Applicant's invention, as defined in claim 1 defines, *inter alia*, a spread spectrum communication system which includes a plurality of detector means and synchronization means, for detecting a reference signal within a received spread spectrum signal, means for generating a local reference signal at the remote unit, means to synchronize the local reference signal with the detected reference signal, and means for recovering message data using information from the detected reference signal. Similar limitations are found in claim 9.

Cowart is cited as showing the use of a reference signal and a message signal in a spread spectrum transceiver. There is no suggestion in Cowart that the transceiver generate a remote signal. Cowart neither shows nor suggests

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synchronization of a reference signal generated by the transceiver with a detected reference signal.

Instead, Cowart uses a stable reference signal with no suggestion that the reference signal be generated in response to a received reference signal. Instead, the Cowart description is of the use of a quartz crystal standard with no outside reference. See Cowart at col. 7, lines 19-39.

Gilhousen, et al. describe a mobile CDMA system which communicates with mobile units. Each cell-site transmits a different "pilot-carrier" signal which is used by the mobile units. The concept of a reverse pilot signal is not mentioned, and in fact the mobile unit uses the cell-site transmitted pilot signals to determine strength of cells and other functions. There is no suggestion in Gilhousen, et al. that a locally generated pilot signal be provided by the mobile units.

Therefore a combination of Cowart and Gilhousen, et al. would necessarily contradict (or "teach away from") the use of a locally generated pilot signal in the mobile unit. Applicant's claims 1 and 9 specify, "... means ... generating a local reference signal and synchronizing the local reference signal with the detected reference signal... ." (Claim 1; claim 9 is similar.) Applicant further defines "...recovering the message data using information from the detected reference signal... ." (Claim 1; claim 9 is similar.)

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These features are neither shown nor suggested by the prior art of record, when taken in combination or individually. Accordingly claims 1-4, 9-11, as well as new claims 15, 16 and 19 are unobvious and allowable over the prior art of record.

A combination of Cowart and Gilhousen, et al. would necessarily contradict (or "teach away from") a method which uses a locally generated pilot signal in the mobile unit. Applicant's claims 5 and 12 specify, "...generating a local reference signal ...[and] synchronizing the local reference signal with a detected reference signal..." (Claim 5; claim 12 is similar.) Applicant further defines "...recovering the message data using information from the detected reference signal..." (Claim 5; claim 12 is similar.)

These features are neither shown nor suggested by the prior art of record, when taken in combination or individually. Accordingly claims 5-8, 12-14, as well as new claims 17, 18 and 20 are unobvious and allowable over the prior art of record.

It is therefore submitted that the application, as presently amended, defines patentable subject matter. Therefore, the application is in a condition for allowance. Such allowance at an early date is respectfully requested.

If the Examiner feels that a conference will expedite the prosecution of this case, the Examiner is cordially invited to call the undersigned. To that end, an Examiner's amendment to this case would be welcomed and appreciated.

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The foregoing is believed to be a complete response to the outstanding office action.

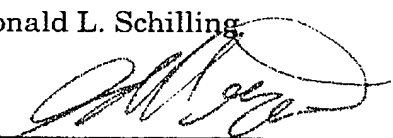
For the above reasons, Applicant respectfully submits that the presently claimed invention is patentable over the prior art. Reconsideration and allowance of the claims is respectfully requested.

For the above reasons, Applicant respectfully submits that the presently claimed invention is patentable over the prior art. Reconsideration and allowance of the claims is respectfully requested.

Respectfully submitted.

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